

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Günter HOLZNER et al.

Confirmation No.: 7260

Application No.: 10/613,668

Patent No.: 7,204,998 B2

Filing Date: July 2, 2003

Patent Date: April 17, 2007

For: PERFUMING OR FLAVORING
MICROCAPSULES COMPRISING A
FIREPROOFING AGENT

Attorney Docket No.: 81455-5560

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. § 1.322

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Patentees hereby respectfully request the issuance of a Certificate of Correction in connection with the above-identified patent. The corrections are listed on the attached Form PTO-1050. The corrections requested are as follows:

Column 8, line 54 (claim 1, line 11), after “hypophosphite,” delete “melamine” and insert -- melamine --. Support for this change appears in application claim 1 as amended August 28, 2006.

Column 9, line 7 (claim 6, line 3), before “fireproofing agent”, delete “a” and insert -- the --. Support for this change appears in application claim 7 as amended November 12, 2004.

The requested corrections are for errors that appear to have been made by the Office. Therefore, no fee is believed to be due for this request. Should any fees be required, however, please charge such fees to Winston & Strawn LLP Deposit Account No. 50-1814. Please issue a Certificate of Correction in due course.

Respectfully submitted,

5-10-07

Date



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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO.: 7,204,998 B2
APPLICATION NO.: 10/613,668
DATED: April 17, 2007
INVENTOR(S): Holzner et al.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8:

Line 54 (claim 1, line 11), after "hypophosphite," delete "melaminc" and insert -- melamine --.

Column 9:

Line 7 (claim 6, line 3), before "fireproofing agent", delete "a" and insert -- the --.

The explosive analysis measured as explained in Example 1 classified the mixture as St-2. The latter was then coated into a Kugelcoater (origin: Hüttlin, Germany) with sodium silicate, according to the following formula:

Ingredients	grams
Tioxol 68 and perfume	900
Aqueous sodium silicate solution 35%	300
Total	1200

After evaporation of water during the coating in the Kugelcoater, there were obtained about 1000 g of coated spheres coated with a sodium silicate layer.

The explosive analysis in a Hartmann apparatus classified the product as St-1. This result is a clear demonstration of the action of the sodium silicate protective layer.

Example 3

Spray-drying of a Perfuming Emulsion Comprising a Fireproofing Agent

Two perfuming emulsions were prepared from the following formulas (parts by weight):

Ingredients	Formula A (parts by weight)	Formula B (parts by weight)
Lavender perfume ¹⁾	13.20	13.20
Tween 20 ²⁾	0.12	0.12
Water	60.00	60.00
Citric acid	0.12	0.12
Capmul 35 ³⁾	20.56	26.56
Budite 315 ⁴⁾	2.00	—
Monoammonium phosphate	4.00	—
Total	100.00	100.00

¹⁾origin: Firmenich SA, Geneva, Switzerland

²⁾polyoxyethylene monooleurate; origin: ICI Chemicals, Great Britain

³⁾dextrin dioctenylsuccinate; origin: National Starch, USA

⁴⁾melamine cyanurate; origin: Budenheim, Germany

The ingredients above-cited were homogenized by means of a Silverson type fast stirrer. The mixtures were then spray-dried in a Sodeva apparatus with an emulsion output of 2 kg/h, drying air: 320 m³/h at 350° C. and 0.45×10⁵ Pa.

There were thus obtained fine powders, the diameter of the particles being comprised between 10 and 300 µm and the content of liquid perfume being 13.2% by weight. After measuring the dust hazard class, as explained in Example 1, of the 2 kinds of powders, Formula A was classified as St-1, while Formula B was classified as St-2. Furthermore, the minimal ignition energy (MIE) was measured for both powders (for method used, see VDI Guideline 2263 part 1: Dust Fires and Dust Explosions, Hazard Assessment—Protective Measures, Test Methods for the Determination of Safety Characteristics of Dusts, Beuth, Berlin, May 1990). Formula A had a MIE comprised between 10 and 25 mJ, while Formula B had an MIE comprised between 5 and 10 mJ.

The latter was thus classified as very reactive (very low values for its MIE) and thus should be treated as a flammable gas (such as propane or butane). On the other hand, Formula A which possessed higher values for its MIE, would thus not be ignited by electric discharges.

Example 4

Spray-drying of a Flavoring Emulsion Comprising a Fireproofing Agent

Two flavoring emulsions were prepared from the following formulas (parts by weight):

Ingredients	Formula A (parts by weight)	Formula B (parts by weight)
Basilic flavor ¹⁾	16.33	16.33
Acetaldehyde	1.81	1.81
Water	45.02	45.02
Capmul 35 ²⁾	28.59	36.84
Disodium phosphate	8.25	—
Total	100.00	100.00

¹⁾origin: Firmenich SA, Geneva, Switzerland

²⁾dextrin dioctenylsuccinate; origin: National Starch, USA

The ingredients above cited were homogenized by means of a fast stirrer.

The mixtures were then spray-dried in an APV PSD 52 apparatus with an emulsion output of 1 kg/h; inlet temperature of 180°; outlet temperature of 80°; evaporation capacity of 20 kg/h at 300°.

There were thus obtained fine powders, the mean particle sizes being respectively 45 µm (Formula A) and 37 µm (Formula B), and the flavor content of the spray-dried powders being identical to that of the starting emulsions.

After measuring the respective dust hazard classes of the obtained powders, as explained in Example 1, Formula A was classified as St-1, while Formula B was classified as St-3. Therefore the presence of an effective amount of disodium phosphate in Formula A advantageously reduced the dust hazard explosive class of the powder.

Furthermore, the evaluation of the two powders by an expert flavorist revealed that the flavor of the powder of formula A was not altered by the presence of disodium phosphate.

What is claimed is:

1. A spray-dried perfuming or flavoring microcapsule comprising at least one perfuming or flavoring ingredient dispersed in or adsorbed within a polymeric carrier material, wherein the microcapsule further comprises an effective amount of a fireproofing agent susceptible of reducing the dust hazard explosive class of the microcapsule to an St-1 classification, wherein said fireproofing agent is selected from the group consisting of sodium silicate, potassium silicate, monoammonium phosphate or carbonate, diammonium phosphate, mono-, di- or trisodium phosphate, sodium hypophosphite, ~~melamine cyanurate~~, and mixtures thereof.

2. The perfuming or flavoring microcapsule according to claim 1, which comprises from 5 to 90% by weight of fireproofing agent relative to the dry weight of the microcapsule.

3. The perfuming or flavoring microcapsule according to claim 1, which comprises from 5 to 15% by weight of fireproofing agent relative to the dry weight of the microcapsule.

4. The perfuming or flavoring microcapsule according to claim 1, which comprises from 1 to 80% by weight of perfume or flavor relative to the total weight of the microcapsule.

melamine

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5. The perfuming or flavoring microcapsule according to claim 1, which comprises from 1 to 50% by weight of perfume or flavor relative to the total weight of the microcapsule.

6. A method for the preparation of perfuming or flavoring microcapsules as defined in claim 1, which comprises adding a fireproofing agent to an aqueous emulsion of the perfuming or flavoring ingredient in the carrier polymeric material, and spray-drying the obtained emulsion to form a powder.

7. A perfumed product selected from the group consisting of a perfume, a Cologne, an after-shave lotion, a soap, a bath or shower gel, a deodorant, a body lotion, a shampoo or another hair-care product, a detergent, a fabric softener, a household cleaner and a cleaning and deodorizing block for toilet tanks, which further comprises perfuming microcapsules according to claim 1.

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8. A perfumed product selected from the group consisting of a perfume, a Cologne, an after-shave lotion, a soap, a bath or shower gel, a deodorant, a body lotion, a shampoo or another hair-care product, a detergent, a fabric softener, a household cleaner and a cleaning and deodorizing block for toilet tanks, which includes perfuming microcapsules made according to the method of claim 6.

9. A food, beverage or pharmaceutical product, which includes flavoring microcapsules according to claim 1.

10. A food, beverage or pharmaceutical product, which includes flavoring microcapsules made according to the method of claim 6.

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